

Pavement Cracking and Seating (BDE)

Effective: May 1, 1990

Revised: January 1, 1997

Description: This work shall consist of furnishing all equipment and labor necessary to crack and seat the existing pavement at those locations shown on the plans.

Equipment: The equipment shall be capable of delivering sufficient dynamic force to crack the pavement full-depth. The cracking shall not be destructive.

The pavement breaker shall incorporate a guided free-falling drop mass (weight) of no less than 5,400 kg (12,000 lbs.) and between 1.6 m (5 1/2 ft.) and 2 m (6 1/2 ft.) wide. The pavement breaker shall be capable of producing full-lane width transverse cracking. Unguided free-falling weights such as headache or wrecking balls will not be allowed.

A 32 metric ton (35 ton) pneumatic tire proof roller shall be used to seat the pavement. The roller shall be according to Article 1101.01(b) of the Standard Specifications.

CONSTRUCTION REQUIREMENTS

General: The existing portland cement concrete pavement shall be cracked into 450 mm (1 1/2 ft.) to 600 mm (2 ft.) pieces in place. The cracks shall be fine lines between the individual pieces with aggregate interlock maintained.

Cracking will not be permitted over drainage facilities, and shall be stopped 600 mm (2 ft.) on either side of the drainage facilities. The Engineer will mark the limits in these areas prior to cracking the pavement.

Before cracking operations begin, the Engineer will designate test sections. The Contractor shall crack the test section using varying energy and striking patterns, as designated by the Engineer, until a pattern is established that cracks the pavement to the extent required. In order to substantiate the pavement cracking equipment is operating properly, the Contractor shall furnish and apply a light spray of water to dampen the pavement surface after cracking so the extent of the cracking can be readily determined. The pattern established shall be used to crack the pavement on the remainder of the project or until such time as the Engineer requires an additional test strip.

If the pavement has been previously overlaid, the Contractor shall remove 15 m (50-ft.) strips of bituminous concrete, at the direction of the Engineer, so that the underlying concrete may be inspected for cracking as detailed above. If the pavement cracking equipment is not providing the desired results, additional 15 m (50-ft.) strips shall be removed and inspected to the satisfaction of the Engineer. The pattern established shall be used to crack the pavement on the remainder of the project or until the Engineer deems an additional test strip is necessary. The cracked pavement shall be rolled to ensure that all pieces of cracked pavement are firmly seated against the subgrade. The rolling pattern shall be determined by the Engineer so the passes overlap to ensure full coverage. Not more than 5 one-way passes will be allowed per lane. Replacement of the bituminous concrete shall be according to Article 406.05 of the Standard Specifications.

If traffic is allowed on the cracked pavement prior to seating, or on the cracked and seated pavement prior to placement of the first bituminous course, the Contractor shall maintain the pavement for traffic to the satisfaction of the Engineer. If the cracked and seated pavement is open to traffic for more than 7 calendar days prior to overlaying, the pavement shall be reseated with a single pass immediately prior to overlaying to the satisfaction of the Engineer.

The Contractor shall exercise caution during all phases of construction to prevent damage to culverts. Crawl speed shall be maintained while crossing culverts or moving to position. No excessive turning movements will be allowed on the culverts and only one piece of construction equipment will be allowed on culverts at one time.

Any soft areas observed during and after the rolling shall be removed and patched full-depth. After patching, the pavement shall be swept clean of debris prior to priming and the placement of the first lift of bituminous concrete binder course.

The proposed widening shall be constructed prior to cracking and seating the pavement. The new and existing bituminous widening shall not be cracked or seated. The Contractor shall take every precaution to avoid any damage or displacement of the widening during the cracking and seating operation.

Method of Measurement: Pavement cracking and seating will be measured in place and the area computed in square meters (square yards). The length will be measured along the centerline of the surface excluding the omitted sections over drainage facilities.

Removal and replacement of soft areas will be measured as Class D patches according to Section 442 of the Standard Specifications.

Removal of 15 m (50-ft. test strips of bituminous concrete will be measured in place and the area computed in square meters (square yards). The replacement of bituminous concrete will be measured in metric tons (tons) according to Article 406.23 of the Standard Specifications.

Basis of Payment: Cracking and seating concrete pavement will be paid for at the contract unit price per square meter (square yard) for PAVEMENT CRACKING AND SEATING.

The removal and replacement of soft areas as described herein will be paid for at the contract unit price per square meter (square yard) for Class D Patches of the type and thickness specified according to Section 442 of the Standard Specifications.

The removal of 15 m (50 ft.) strips of bituminous concrete will be paid for at the contract unit price per square meters (square yard) for BITUMINOUS CONCRETE REMOVAL, which price shall include the disposal of the bituminous concrete. Replacement of the bituminous concrete paid for at the contract unit price per metric ton (ton) for LEVELING BINDER (MACHINE METHOD) according to Article 406.06 of the Standard Specifications.

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